File

8/3

M.O.7 W. Centre Manchester

8-4

METEOROLOGICAL OFFICE
16 SEP 1963
MANCHESTER WEATHER CENTRE

HYDROLOGICAL MEMORANDA NO. 19

Rainfall over the areas of the Great Ouse River Board 1916-1950

1. Rainfall, 1916-1950;

1.1. Introduction. The estimation of standard-period averages for the months or for the year, is carried out in three stages; the selection of sound, homogeneous reccords complete for the 35 years, 1916-1950, which provide arithmetic means of monthly and annual rainfall, the basic values for all other work; the estimation of standard-period, annual averages for short-period stations; the estimation of standard-period, monthly averages for stations in the second group, where these are needed for special purposes.

A detailed account of the methods developed and used in the Meteorological Office (M.O.3) to estimate standard-period averages from short-period records, is given in Hydrological Memoranda No. 5.

It is possible to process the data in a number of ways but the maps and tables are presented here in the simplest, most precise forms in order to be of use to a wide range of enquirers.

1.2. The Primary Survey, for Great Britian and Northern Ireland, of stations with complete records during 1916-1950, included some cases where the site had been changed to one with a better exposure and observations from both sites had been recorded for a few years. Attempts were made to amend the earlier readings by comparison of the data during a period of overlap, in order to have a set of values from 1916, to the date of the change, which would be representative of the later, and better, record. But since the earlier exposures were usually unsatisfactory (being over-exposed or over-sheltered), the results were mostly erratic and the amended sets of values were not homogeneous. In a few cases, small breaks in a long record were completed by using estimated values, based on a nearby station, with or without the use of modifying factor.

Of the many records examined, monthly and annual averages were accepted for 23 stations. The accepted values (in inches), together with the proportions (per cent) of each monthly average to the annual average, are given in Table I together with the altitude and the National Grid reference for each station. Most of these averages were included in H.M.S.O. publication, M.O.635, "Averages of Rainfall for Great Britain and Northern Ireland, 1916-1950", some were omitted because other stations were so near.

The percentage proportion of monthly averages to the annual averages for the long-period stations were used to draw a series of twelve monthly maps from which it is possible to estimate the percentage of average annual rainfall, for any place, for each month of the year. These maps are shown as Figure 1. Values estimated for a few points between the isopercental lines have been added to give a clearer indication of the variations from place to place. The points chosen are not necessarily the same for each map.

1.3. The Secondary Survey of short-period stations was undertaken next, using records up the the time of the survey, usually into the late 1950's. Long-period stations, whose averages had been rejected from the Primary Survey because the record was not homogeneous, were examined again and averages were estimated for the later (and usually improved) part of the series of observations. Averages

/ based

based on data for less than 5 years were not usually accepted for publication. A list of the accepted averages, for the short-period stations, is given in Table II together with the altitude and National Grid reference for each. The stations are listed in an order based on natural drainage areas which will be used for the first time in British Rainfall, 1961.

These averages, together with the long-period averages listed in Table I, were plotted on Ordnance Survey Maps (scale 4 miles to the inch), and used to draw the lines of average annual rainfall, 1916-1950. The map is shown as Figure 2. The Secondary Survey is frequently revised for special areas using the most up-to-date observations for relatively new stations and the map is subject to revision from time to time. The redrawing of the isohyets usually results in greater detail and perhaps a clearer definition of a wet area as more and more observations become available from improved River Board networks of rain-gauges. Drastic changes are not expected. In Tables I, II and III, with a few exceptions, the average quoted are for records still being maintained in 1963.

1.4. Monthly Averages for a further group of stations were next estimated for use in the Monthly Weather Report and for enquiries. For this purpose some stations were chosen from those listed in Table II to supplement those listed in Table I. To find the monthly averages, the monthly proportions (per cent of annual average) were chosen from the equipercental maps (see Fig. 1) so that the total for the twelve months was 100. These monthly percentages were then used to apportion the annual average (in inches) amongst the months. The results are given in Table III.

1.5. Daily Rainfall, 1916-50. Four of the initial 23 records which were accepted for the Primary Survey (1.2.) were analysed further. These records had regular daily entries, for the 24-hour period 0900 to 0900, for each of the 35 years, 1916-50. Table IVa gives, for each of the stations, the 35-year totals for each day of the year (in inches). Table IVb gives 1/35 of all possible totals from .17in. to 24.67in., thus providing a reduction table for the values in IVa to give average daily falls from "trace" to .70in. For 29 February the reduction factor is, of course, 1/9.

These daily averages can be re-grouped as 5-day means, 7-day means, consecutive or sliding means or in whatever form suits a specific requirement.

2. Frequencies of Daily Rainfall, 1916-1950. The same set of daily values used for Table IVa were re-grouped to give frequency tables with intervals of .01in. These have been re-arranged in Table V to give accumulated frequencies with intervals of .01in. up to 2.50in. and a wider grouping above this.

3. Extremes of Rainfall. The records for the 35-year period, 1916-1950, for the stations used in Tables IV and V were also used to find maximum and minimum values for the year and for each month and also maximum daily values for each month. These maxima and minima are given in Table VI and Table VII. Additional extremes are given in these tables to cover the 50-year period, 1911-1960.

Appendix I.

Intense Falls. Falls of 2 hours or less, which have been recorded in British Rainfall and rank as "noteworthy", "remarkable" or "very rare", are listed in Appendix I.

H. ROWSELL
Meteorological Office, M.O.3a
Bracknell, Berkshire.

G.18557/WT/8/63/75

TABLE I. Monthly and Annual Averages of Rainfall, 1916-1950, in inches.

Great Ouse River Board

County	Station	Alt. Ft.	N.G.R.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Year	
Buckinghamshire	Sandpit Farm	260	SP(42)703343	2.30 8.9	1.79 7.0	1.69 6.6	2.00 7.8	2.10 8.2	1.66 6.5	2.40 9.3	2.23 8.7	2.20 8.6	2.48 9.6	2.60 10.1	2.25 8.7	25.70 100.0	Inch %
Northamptonshire	Easton Neston House	370	SP(42)702494	2.43 9.1	1.85 6 9	1.70 6.4	2.15 8.1	2.15 8.1	1.68 6.3	2.49 9.4	2.35 8.8	2.20 8.3	2.55 9.6	2.68 10.1	2.36 8.9	26.59 100.0	Inch %
Bedfordshire	Woburn	291	SP(42)964358	2.13 8.6	1.61 6.5	1.58 6.4	1.93 7.8	2.20 8.9	1.70 6.9	2.44 9.8	2.33 9.4	2.03 8.2	2.30 9.3	2.46 9.9	2.07 8.3	24.78 100.0	Inch %
Buckinghamshire	Brayfield House	180	SP(42)928520	2.19 8.9	1.67 6.8	1.59 6.4	1.90 7.7	2.11 8.5	1.61 6.5	2.36 9.6	2.23 9.0	2.28 9.2	2.28 9.2	2.48 10.0	2.02 8.2	24.72 100.0	Inch %
Bedfordshire	Bedford, Castle Road	100	TL(52)057498	1.97 8.7	1.47 6.5	1.42 6.3	1.69 7.5	1.97 8.7	1.45 6.4	2.21 9.8	2.03 9.0	2.12 9.4	2.11 9.4	2.29 10.1	1.84 8.2	22.57 100.0	Inch %
"	Bedford Park	117	TL(52)051510	1.77 8.5	1.34 6.4	1.31 6.3	1.60 7.7	1.83 8.8	1.41 6.8	2.01 9.7	1.88 9.0	1.96 9.4	1.92 9.2	2.12 10.2	1.66 8.0	20.81 100.0	Inch %
"	Three Counties Hospital	200	TL(52)203350	1.88 8.6	1.41 6.5	1.33 6.1	1.75 8.0	1.80 8.3	1.44 6.6	2.37 10.9	1.99 9.2	1.85 8.5	2.09 9.6	2.23 10.3	1.60 7.4	21.74 100.0	Inch %
"	Meppershall	250	TL(52)137362	1.97 8.6	1.45 6.3	1.43 6.2	1.75 7.6	1.95 8.5	1.61 7.0	2.51 10.9	2.19 9.5	1.92 8.3	2.14 9.3	2.30 10.0	1.79 7.8	23.01 100.0	Inch %
"	Shefford	90	TL(52)163392	1.85 8.4	1.36 6.2	1.38 6.3	1.67 7.6	1.91 8.7	1.52 6.9	2.26 10.2	2.16 9.8	1.89 8.6	2.06 9.3	2.28 10.3	1.71 7.7	22.05 100.0	Inch %
~~N. Devonshire~~ Huntingdonshire	St. Ives, Market Lane	25	TL(52) 316714	1.93 9.0	1.44 6.7	1.33 6.2	1.66 7.7	1.85 8.6	1.61 7.5	2.14 9.9	1.89 8.8	1.99 9.2	1.89 8.8	2.09 9.7	1.70 7.9	21.52 100.0	Inch %

TABLE I. Monthly and Annual Averages of Rainfall, 1916-1950, in inches.

Great Ouse River Board

County	Station	Alt. ft.	N.G.R.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Year	
Cambridgeshire	Boxworth, Manor House	75	TL(52)352645	2.22	1.58	1.45	1.88	1.98	1.67	2.52	1.95	2.16	2.14	2.35	1.93	23.83	Inch
				9.3	6.6	6.1	7.9	8.3	7.0	10.6	8.2	9.1	9.0	9.8	8.1	100.0	%
"	Cottenham	30	TL(52)452678	2.09	1.51	1.44	1.77	1.78	1.60	2.36	1.88	2.16	2.02	2.27	1.82	22.70	Inch
				9.2	6.7	6.3	7.8	7.8	7.1	10.4	8.3	9.5	8.9	10.0	8.0	100.0	%
"	Odsey	256	TL(52)293383	2.05	1.51	1.40	1.88	1.87	1.58	2.44	2.10	1.95	2.21	2.43	1.85	23.27	Inch
				8.8	6.5	6.0	8.1	8.0	6.8	10.5	9.0	8.4	9.5	10.4	8.0	100.0	%
"	Cambridge, Botanic Gardens	41	TL(52)453572	1.95	1.38	.30	1.77	1.80	1.47	2.42	1.90	2.04	1.96	2.08	1.65	21.72	Inch
				9.0	6.4	6.0	8.1	8.3	6.8	11.1	8.7	9.4	9.0	9.6	7.6	100.0	%
"	Cambridge, Stone Yard	52	TL(52)464579	1.86	1.34	1.25	1.66	1.75	1.40	2.34	1.84	2.02	1.94	2.00	1.56	20.96	Inch
				8.9	6.4	6.0	7.9	8.3	6.7	11.2	8.8	9.6	9.3	9.5	7.4	100.0	%
Suffolk	Newmarket S. Works	81	TL(52)635648	2.11	1.55	1.36	1.88	1.74	1.56	2.61	2.21	2.20	2.12	2.27	1.92	23.53	Inch
				9.0	6.6	5.8	8.0	7.4	6.6	11.1	9.4	9.3	9.0	9.6	8.2	100.0	%
"	Westley Hall	226	TL(52)825647	2.33	1.70	1.61	2.12	1.85	1.70	2.82	2.46	2.31	2.41	2.61	2.19	26.11	Inch
				8.9	6.5	6.2	8.1	7.1	6.5	10.8	9.4	8.9	9.2	10.0	8.4	100.0	%
Norfolk	Thetford W. Works	165	TL(52)864846	2.19	1.61	1.43	1.90	1.80	1.70	2.62	2.38	2.23	2.21	2.44	2.06	24.57	Inch
				8.9	6.6	5.8	7.7	7.3	6.9	10.7	9.7	9.1	9.0	9.9	8.4	100.0	%
Cambridgeshire	Littleport	67	TL(52)564864	1.78	1.31	1.25	1.51	1.82	1.53	2.35	1.86	1.92	1.92	1.98	1.59	20.82	Inch
				8.6	6.3	6.0	7.3	8.7	7.4	11.3	8.9	9.2	9.2	9.5	7.6	100.0	%

TABLE I. Monthly and Annual Averages of Rainfall, 1916-1950, in inches.

Great Ouse River Board

County	Station	Alt. ft.		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Year	
Cambridgeshire	Stanground	15	TL(52)209973	1.95	1.40	1.33	1.58	1.80	1.63	2.39	1.93	1.89	1.95	2.14	1.73	21.72	Inch
				9.0	6.4	6.1	7.3	8.3	7.5	11.0	8.9	8.7	9.0	9.8	8.0	100.0	%
"	March, Store Yard	8	TL(52)420967	2.08	1.46	1.41	1.70	1.91	1.72	2.55	1.90	2.11	2.13	2.25	1.85	23.07	Inch
				9.0	6.3	6.1	7.4	8.3	7.5	11.1	8.2	9.1	9.2	9.8	8.0	100.0	%
Norfolk	Outwell	16	TF(53)529029	1.89	1.31	1.24	1.53	1.75	1.57	2.33	1.92	2.01	2.05	2.09	1.65	21.34	Inch
				8.9	6.1	5.8	7.2	8.2	7.4	10.9	9.0	9.4	9.6	9.8	7.7	100.0	%
"	Sandringham House	121	TF(53)695288	2.50	1.91	1.58	2.06	2.05	1.97	2.71	2.41	2.38	2.56	2.75	2.31	27.19	Inch
				9.2	7.0	5.8	7.6	7.5	7.2	10.0	8.9	8.8	9.4	10.1	8.5	100.0	%

TABLE II Estimated Annual Averages of Rainfall (in inches), 1916-1950 for short-period stations. (Great Ouse River Board Area).

County	Station	Annual Average in.	Alt. ft.	N.G.R.
Norfolk	Terrington St. Clement	20.42	13	TF(53)547187
"	Terrington Manor Farm	21.67	13	TF(53)553204
"	Clankhavarton	22.84	10	TF(53)594212
Northamptonshire	Hazelborough Woods	26.95	460	SP(42)654427
Buckinghamshire	Foxcote P. Station	25.39	320	SP(42)713357
Northamptonshire	Bradden House	27.51	420	SP(42)645484
Buckinghamshire	Burcott Lodge Farm	25.85	420	SP(42)876242
Bedfordshire	Battlesden P. Station	26.18	358	SP(42)960281
Buckinghamshire	Newport Pagnall, Wolverton Rd.	24.28	182	SP(42)870436
"	Olney Waterworks	24.79	170	SP(42)873510
Bedfordshire	Pavenham	23.90	200	SP(42)982555
"	Kempston	22.49	125	TL(52)033477
"	Goldington	21.39	79	TL(52)091509
"	Renhold	22.54	168	TL(52)087529
"	Cardington	20.76	75	TL(52)081463
"	Mogerhanger Park	22.80	152	TL(52)133485
Hertfordshire	Hitchin, Knightswood	26.40	280	TL(52)191290
Bedfordshire	Arlesey, S. Works	22.75	141	TL(52)190363
"	Silsoe	22.50	195	TL(52)091358
"	New Spring, P. Station	21.87	175	TL(52)210416
"	Potton, S. Works	22.49	111	TL(52)221485
Huntingdonshire	Great Gransden	22.28	150	TL(52)267557
"	St. Neots	21.45	70	TL(52)189605
"	Wyton	21.40	141	TL(52)284745
Cambridgeshire	Boxworth	21.37	157	TL(52)347639
"	Brownshill Staunch	21.22	10	TL(52)370728
"	Stretham	19.94	13	TL(52)516729
Essex	Rickling	23.84	325	TL(52)498314
"	Saffron Waldon	23.29	235	TL(52)532378
Cambridgeshire	Abington, Piggots Hall	23.18	98	TL(52)304446
Hertfordshire	Barley	23.31	320	TL(52)399389
Cambridgeshire	Grantchester Meadows	21.81	35	TL(52)443571
"	Cambridge P. Station	20.60	42	TL(52)466593
"	Cambridge, Woodlark Rd.	22.61	62	TL(52)436602
"	Cambridge N.I.A.B.	21.53	80	TL(52)434604
"	Bottisham Lock	20.16	10	TL(52)509657
"	Fulbourn	21.40	99	TL(52)540549
"	Fulbourn Hospital	21.66	72	TL(52)499563
"	Stretchworth Park	23.29	270	TL(52)643591
"	Fordham	21.05	30	TL(52)623711
"	Ely, Rosewell Pits	21.99	114	TL(52)560805
Suffolk	Bury St. Edmunds, Corp. Depot	24.92	181	TL(52)850643
"	Sury St. Edmunds, Sugar Fact.	24.82	160	TL(52)862664
"	Troston Hall	23.81	130	TL(52)899717
"	Worlington	22.70	35	TL(52)684729
"	Moulton P. Station	24.36	135	TL(52)698645
Cambridgeshire	Isleham Lock	20.94	10	TL(52)649761
Suffolk	Mildenhall	21.61	15	TL(52)683778
Cambridgeshire	Prickwillow	22.96	10	TL(52)597825
Suffolk	Barton Lodge	22.42	200	TL(52)884664
"	Elvedon Hall	23.97	130	TL(52)822800
Norfolk	Kilverstone Hall	23.75	55	TL(52)891841
Suffolk	Brandon W. Works	26.39	82	TL(52)793862
"	Eriswell P. Station	24.52	30	TL(52)729761

TABLE II Estimated Annual Averages of Rainfall (in inches), 1916-1950 for short-period stations. (Great Ouse River Board Area)(contd)

County	Station	Annual Average in.	Alt. ft.	N.G.R.
Norfolk	Denton Lodge P. Station	24.79	120	TL(52)753920
"	Denver Sluice	22.76	10	TF(53)587009
Cambridgeshire	Puddock Bridge	20.85	5	TL(52)351880
"	Chatteris, The Vicarage	21.63	30	TL(52)395858
Huntingdonshire	Abbot's Ripton Hall	21.83	80	TL(52)241779
"	Benwick	21.59	5	TL(52)324899
Cambridgeshire	Ransonmoor P. Station	20.65	0	TL(52)358922
Huntingdonshire	Conington Castle	22.88	25	TL(52)181859
"	Whittlesea Mere	21.15	10	TL(52)237904
Cambridgeshire	Whittlesey, Ashline Sluice	21.47	15	TL(52)272962
"	Marmont Priory Lock	20.68	10	TF(53)489012
Norfolk	Downham, Dial House	23.82	50	TF(53)607031
"	Crabb's Abbey	22.29	8	TF(53)600078
"	Wiggen Hall, St.Germans Sluice	21.77	9	TF(53)588143
"	Kings Lynn, Free Bridge	22.58	15	TF(53)613184
"	Narford Hall	25.90	50	TF(53)766139
"	Narborough Hall	25.44	45	TF(53)748130
"	Marham P. Station	24.80	20	TF(53)717107
"	North Runcton Lodge	23.23	50	TF(53)644163

TABLE III. Monthly and Annual Averages of Rainfall, 1916-1950, estimated for short period stations (in inches)

Great Ouse River Board Area

County	Station	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Year
Norfolk	Terrington St. Clements	1.80	1.35	1.18	1.49	1.57	1.51	2.14	1.88	1.82	1.90	2.06	1.72	20.42
Bedfordshire	Cardington	1.78	1.33	1.31	1.56	1.81	1.41	2.07	1.91	1.87	1.93	2.10	1.68	20.76
"	Silsoe	1.94	1.42	1.39	1.71	1.91	1.58	2.45	2.14	1.87	2.09	2.25	1.75	22.50
Cambridgeshire	Boxworth	1.99	1.41	1.30	1.69	1.77	1.50	2.27	1.75	1.95	1.92	2.09	1.73	21.37
"	Cambridge N.I.A.B.	1.96	1.40	1.31	1.72	1.79	1.48	2.35	1.85	2.02	1.92	2.09	1.64	21.53
Suffolk	Mildenhall	1.90	1.41	1.25	1.71	1.62	1.49	2.42	2.03	2.01	1.92	2.05	1.80	21.61

TABLE IVa 35-Year Totals of Daily Rainfall, 1916-1950 (in inches)

Thetford

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	4.25	2.44	1.16	1.88	2.11	2.08	1.40	3.01	2.82	1.25	4.09	2.85
2	3.22	1.87	1.35	2.63	1.09	2.33	2.03	2.53	2.79	1.41	4.04	3.14
3	2.62	3.57	1.01	3.10	2.42	1.63	6.57	2.82	2.97	2.30	3.14	1.32
4	2.05	1.31	1.49	1.76	1.23	1.75	1.65	3.45	2.52	2.32	2.37	3.14
5	2.29	3.15	1.69	2.36	3.70	2.36	3.45	5.56	3.02	1.53	3.68	2.05
6	2.27	1.50	2.14	1.51	2.05	2.19	4.76	2.57	1.77	1.23	3.13	1.96
7	3.22	2.00	2.19	2.24	2.40	1.71	1.54	2.78	1.27	2.19	3.34	1.77
8	2.05	1.19	.96	1.56	1.34	1.85	2.37	3.36	1.10	2.54	3.08	2.66
9	2.44	1.53	1.40	2.55	1.93	1.73	2.87	2.94	2.24	3.16	2.60	1.77
10	2.85	1.62	1.80	2.05	1.48	2.15	2.77	2.67	1.70	1.65	2.98	1.56
11	2.53	1.88	2.48	1.81	1.71	1.57	1.63	3.18	1.64	2.50	4.02	2.13
12	2.27	2.62	2.24	1.05	1.78	2.56	2.71	1.64	3.07	3.64	2.15	1.12
13	1.94	1.66	1.42	2.38	1.72	3.18	2.78	4.53	2.41	1.14	2.47	1.56
14	2.19	2.34	2.23	1.41	1.37	1.56	3.42	3.49	2.95	2.40	2.04	2.24
15	2.67	1.55	1.61	3.60	1.74	.91	4.41	2.49	1.63	2.10	2.02	.90
16	1.74	2.36	1.69	2.76	2.19	1.09	3.21	1.39	1.92	1.84	3.13	2.21
17	1.27	1.63	1.68	2.62	3.42	2.83	5.89	1.52	2.88	2.97	2.68	1.72
18	2.93	2.21	.70	3.18	1.54	2.39	2.93	3.96	3.48	1.96	4.34	2.78
19	2.20	1.30	1.57	2.35	1.21	2.94	1.79	2.01	3.97	2.83	2.36	1.36
20	1.52	1.38	1.90	1.89	2.91	1.56	3.16	2.44	2.97	2.99	3.00	.79
21	2.15	1.43	1.81	1.35	1.43	1.68	3.81	2.15	2.18	3.09	3.20	3.03
22	2.02	2.14	1.52	1.26	1.64	1.37	2.03	2.52	2.90	3.92	2.04	3.13
23	2.50	2.04	.91	2.20	6.02	2.10	3.05	2.41	2.93	4.30	2.14	2.01
24	1.76	2.27	1.28	1.98	2.30	1.47	1.49	3.01	4.44	2.49	2.36	2.21
25	3.29	2.18	2.84	2.67	1.99	1.32	2.75	2.00	2.29	2.71	2.19	2.81
26	1.68	2.35	1.99	2.58	2.44	1.61	5.19	2.14	4.43	3.17	2.91	3.71
27	2.61	2.52	1.26	3.62	1.29	2.85	3.56	1.76	3.58	2.55	2.50	2.98
28	3.66	1.79	1.32	1.63	1.57	2.54	2.45	2.62	1.46	3.83	3.10	2.89
29	2.92	.42	1.55	2.70	2.05	1.45	1.18	2.39	3.27	2.98	2.63	2.94
30	2.25	–	.99	1.94	2.00	2.61	1.12	1.85	1.59	2.12	1.70	4.11
31	3.39	–	1.76	–	1.05	–	3.54	2.16	–	2.09	–	3.30

G.18557/AVK/7/63/

TABLE IVa Contd. 35-Year Totals of Daily Rainfall, 1916-1950 (in inches)

Bedford

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	1.87	2.54	1.33	2.62	2.61	1.70	1.37	3.05	1.55	1.17	3.30	2.96
2	2.53	1.53	.96	1.93	1.02	1.85	1.75	4.96	2.65	1.46	3.68	1.56
3	2.52	2.97	.61	3.48	2.44	1.46	2.05	1.75	3.09	2.01	3.28	1.19
4	1.55	.88	2.44	1.89	1.32	.87	.73	1.27	2.92	1.56	1.56	2.28
5	.82	2.31	1.97	2.30	2.87	1.09	2.81	1.74	2.98	.82	3.78	1.71
6	2.27	1.43	1.51	1.84	2.41	1.99	2.67	2.39	1.38	1.17	1.88	1.81
7	2.60	1.96	2.45	1.05	1.28	1.91	2.29	1.88	1.11	1.57	2.60	1.70
8	1.61	2.53	.66	1.66	.82	1.26	1.47	3.05	1.73	2.97	2.33	2.09
9	2.04	1.06	.80	1.41	1.12	3.33	4.06	1.86	1.75	2.15	2.35	1.94
10	2.42	.89	1.64	1.35	1.39	2.11	3.13	3.00	1.45	1.01	2.21	1.93
11	2.21	1.16	1.69	1.83	1.64	1.59	2.22	1.90	1.83	1.93	3.22	1.24
12	1.37	2.59	1.28	1.22	1.44	2.51	.80	1.77	2.49	2.48	2.50	.93
13	.93	1.19	2.70	2.41	1.21	2.28	3.02	1.34	1.52	1.87	2.36	1.59
14	1.41	.56	2.44	.96	1.30	2.25	2.28	2.54	2.83	.83	2.81	1.43
15	2.44	1.40	1.44	2.59	2.20	1.40	4.32	1.38	2.75	1.95	1.82	2.38
16	1.27	1.44	2.34	2.28	3.02	1.32	1.81	1.05	1.91	2.78	3.31	.84
17	1.11	1.16	.99	2.00	1.97	.88	4.79	1.17	2.22	1.93	2.07	.97
18	2.16	1.58	.51	1.82	1.92	1.41	1.69	1.36	3.01	2.46	3.57	1.90
19	2.40	1.46	1.79	1.47	1.63	1.56	1.04	2.36	2.72	2.59	2.82	1.11
20	1.92	1.26	1.02	2.26	2.54	2.70	2.10	3.17	4.09	2.75	2.47	.91
21	1.66	1.88	1.79	1.19	3.08	1.89	2.40	2.50	2.24	3.07	1.93	2.70
22	1.86	1.99	1.41	.73	3.18	1.09	1.93	1.72	3.64	2.33	1.92	3.00
23	1.69	1.72	1.01	1.54	4.48	.81	1.13	2.66	2.47	5.00	1.48	1.59
24	1.75	1.76	1.07	.84	1.82	1.30	.99	1.57	3.47	1.40	2.26	2.07
25	1.99	2.25	1.60	1.63	3.58	1.68	2.30	2.47	1.25	3.16	1.69	1.94
26	2.08	1.94	1.34	2.65	2.88	1.05	3.51	1.02	1.16	2.82	1.82	2.53
27	2.68	1.24	1.77	2.67	2.37	1.74	2.32	2.12	1.76	2.48	2.03	2.48
28	2.07	2.02	1.33	1.65	1.61	1.69	3.32	3.21	1.25	2.20	2.57	2.09
29	3.89	.27	.53	2.72	2.25	1.12	2.49	2.67	3.24	2.66	2.03	2.08
30	2.35	-	1.76	1.99	1.35	1.59	2.00	2.01	2.12	1.37	2.52	2.47
31	2.38	-	1.77	-	1.45	-	1.57	.95	-	3.22	-	2.50

TABLE IVa Contd. 35-year Totals of Daily Rainfall, 1916-1950 (in inches)

Cambridge

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	3.43	2.28	1.12	2.29	1.76	1.61	1.28	2.52	1.54	1.43	2.85	3.52
2	2.60	2.00	1.29	2.23	2.17	2.06	1.54	3.67	2.92	8.23	2.80	2.27
3	1.92	2.27	.60	3.38	3.27	1.46	4.70	1.74	5.18	2.27	3.57	.88
4	1.44	1.14	2.03	1.85	.63	1.72	1.24	2.24	2.35	1.68	1.69	2.33
5	1.56	2.59	1.43	2.37	3.11	1.65	2.80	2.22	1.98	1.41	2.59	1.72
6	2.79	1.54	2.76	1.50	2.50	1.80	4.65	2.90	1.36	1.04	2.59	1.28
7	3.20	1.82	2.05	1.58	1.39	1.46	1.41	2.25	.85	2.35	3.02	1.66
8	1.19	1.05	.69	1.55	.81	1.13	2.99	2.87	1.13	2.82	2.18	2.17
9	2.45	1.28	1.00	1.61	1.47	2.78	4.28	3.32	2.07	2.59	2.02	1.84
10	2.61	.97	1.99	1.95	1.70	1.34	2.17	1.97	1.04	1.45	1.91	1.18
11	2.41	1.20	1.47	1.57	1.41	4.61	1.26	1.83	1.51	1.09	4.56	1.23
12	1.74	2.63	2.07	.88	1.16	2.72	.96	1.72	2.78	3.59	2.09	.57
13	1.29	1.31	2.19	2.17	2.23	2.61	2.13	.91	1.83	1.43	2.48	1.33
14	1.65	1.45	1.55	1.29	1.29	1.71	4.19	2.63	3.36	1.95	2.19	2.27
15	2.40	.74	1.74	3.04	1.91	1.34	4.09	1.52	1.91	1.81	1.52	.76
16	1.67	2.40	1.52	2.26	2.81	.85	4.43	.75	1.97	2.20	2.69	1.36
17	1.13	1.16	1.03	3.00	2.72	1.31	4.74	1.28	2.56	2.19	2.02	1.07
18	3.19	1.93	.37	2.15	1.39	2.04	2.36	1.11	2.72	1.24	3.11	2.24
19	1.50	1.26	1.59	1.55	1.79	2.59	1.50	1.51	3.68	2.76	2.54	.79
20	1.57	1.45	1.20	1.59	2.15	2.19	3.67	2.43	3.74	3.24	2.26	.50
21	1.98	1.39	2.15	1.75	1.91	2.30	2.20	2.72	2.02	3.26	1.90	2.81
22	2.10	1.70	1.65	.62	1.41	1.17	2.80	4.64	3.24	2.91	1.83	2.94
23	1.82	2.14	.61	1.46	4.93	1.18	2.43	2.57	2.88	3.91	1.79	1.74
24	1.54	1.80	1.55	1.75	3.71	1.45	2.06	3.36	4.40	1.80	1.90	1.49
25	2.71	2.69	2.03	3.26	2.48	1.03	1.57	1.96	1.31	2.83	1.59	2.33
26	2.63	1.92	1.54	2.57	3.48	.93	3.58	1.00	1.59	2.74	2.12	2.48
27	2.50	2.16	1.25	2.55	1.49	2.20	2.63	1.70	3.04	2.67	2.46	2.82
28	3.51	1.86	1.40	1.79	1.24	2.68	2.14	3.44	1.31	2.56	2.69	2.60
29	2.81	.21	.90	2.99	2.17	.91	3.93	3.18	3.41	2.11	2.41	1.78
30	1.87	-	.75	3.50	1.51	2.61	2.19	2.21	1.75	1.78	1.28	3.12
31	3.06	-	2.10	-	.88	-	2.83	1.11	-	2.80	-	2.49

Table IVa. 35-year daily totals of rainfall, (in inches), 1916-1950

Sandringham

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	4.40	2.09	1.63	1.49	1.43	2.22	1.99	3.57	4.32	2.90	4.95	2.19
2	3.49	2.06	1.57	3.22	1.40	3.28	1.36	4.33	3.16	1.43	3.45	3.53
3	2.61	3.95	.76	3.08	1.55	2.41	3.90	2.46	4.07	3.13	3.80	1.85
4	2.50	1.47	2.29	2.97	1.41	1.63	2.90	1.86	2.82	2.56	2.60	2.78
5	2.93	2.78	1.50	2.45	3.43	1.71	2.47	2.21	2.73	1.41	3.72	2.56
6	2.77	2.01	1.79	2.20	2.31	2.50	3.19	1.54	2.48	2.11	2.71	1.85
7	3.96	2.85	2.68	1.91	2.99	1.51	4.09	2.68	1.60	2.60	3.48	1.52
8	2.16	2.52	.94	1.78	1.55	1.22	2.56	5.41	1.10	3.48	3.30	2.77
9	3.05	2.79	2.21	2.78	1.65	1.43	3.11	3.00	2.36	3.54	3.40	2.59
10	3.16	2.50	2.06	2.79	1.69	2.75	2.94	3.50	1.36	2.10	3.03	2.18
11	3.31	1.95	2.02	2.09	2.28	2.11	2.02	1.91	1.95	2.95	4.49	2.69
12	2.62	3.20	2.09	2.01	2.39	2.64	2.51	2.87	3.32	3.45	2.96	1.71
13	1.79	1.51	1.94	2.11	1.27	4.05	2.04	1.72	3.06	1.25	3.54	2.28
14	3.06	1.90	2.00	2.17	1.75	2.62	2.68	2.19	3.80	2.12	1.77	2.63
15	2.80	1.55	1.98	3.77	1.47	2.33	7.30	1.91	2.19	1.53	2.53	1.53
16	1.86	2.80	2.15	3.37	2.52	1.67	3.38	.78	2.55	2.29	2.76	2.54
17	2.03	1.88	2.10	3.20	3.72	1.63	4.76	3.07	2.88	3.12	3.27	1.69
18	2.67	2.17	.62	3.17	1.92	4.49	4.18	2.80	2.47	2.38	4.73	2.52
19	2.88	1.91	2.16	2.55	2.36	3.04	2.86	2.43	3.01	2.71	2.93	2.02
20	1.95	2.41	1.38	2.18	1.81	2.11	1.95	3.93	3.27	3.46	3.55	1.29
21	2.13	1.47	2.09	1.29	1.48	1.86	3.74	2.56	1.83	3.59	4.19	4.41
22	2.83	2.31	2.08	1.31	3.63	1.78	2.78	2.95	3.33	3.74	2.15	3.89
23	2.70	1.79	1.45	2.34	5.91	1.16	3.37	3.47	2.92	3.72	3.03	2.67
24	2.11	2.91	1.44	1.94	2.91	2.62	1.99	4.16	4.11	2.87	2.94	1.96
25	3.34	2.53	2.73	3.24	3.68	1.47	2.63	1.79	2.60	3.23	2.03	2.74
26	2.83	3.35	1.31	2.25	3.39	1.87	2.12	1.89	2.80	4.20	3.03	3.21
27	1.99	2.73	1.94	2.21	2.11	2.00	3.74	1.54	3.35	3.57	2.65	2.55
28	4.05	2.92	1.67	1.37	1.58	2.90	3.29	4.47	2.00	4.29	3.89	3.42
29	3.34	.67	1.91	2.42	2.11	2.29	3.57	3.07	2.85	3.78	2.95	3.25
30	2.49	-	1.08	2.32	2.62	3.63	1.35	2.65	3.09	2.63	2.25	3.93
31	3.72	-	1.86	-	1.44	-	4.04	1.63	-	3.31	-	4.09

Table IVb Rainfall totals in inches, divided by 35, thus giving 35-year means ranging from 'trace' to .70 in., for use with table IVa.

Totals in inches x	35 yr means $x/35$	Totals in inches x	35 yr means $x/35$
- .17	'trace'	12.43 - 12.77	.36
.18 - .52	.01	12.78 - 13.12	.37
.53 - .87	.02	13.13 - 13.47	.38
.88 - 1.22	.03	13.48 - 13.82	.39
1.23 - 1.57	.04	13.83 - 14.17	.40
1.58 - 1.92	.05	14.18 - 14.52	.41
1.93 - 2.27	.06	14.53 - 14.87	.42
2.28 - 2.62	.07	14.88 - 15.22	.43
2.63 - 2.97	.08	15.23 - 15.57	.44
2.98 - 3.32	.09	15.58 - 15.92	.45
3.33 - 3.67	.10	15.93 - 16.27	.46
3.68 - 4.02	.11	16.28 - 16.62	.47
4.03 - 4.37	.12	16.63 - 16.97	.48
4.38 - 4.72	.13	16.98 - 17.32	.49
4.73 - 5.07	.14	17.33 - 17.67	.50
5.08 - 5.42	.15	17.68 - 18.02	.51
5.43 - 5.77	.16	18.03 - 18.37	.52
5.78 - 6.12	.17	18.38 - 18.72	.53
6.13 - 6.47	.18	18.73 - 19.07	.54
6.48 - 6.82	.19	19.08 - 19.42	.55
6.83 - 7.17	.20	19.43 - 19.77	.56
7.18 - 7.52	.21	19.78 - 20.12	.57
7.53 - 7.87	.22	20.13 - 20.47	.58
7.88 - 8.22	.23	20.48 - 20.82	.59
8.23 - 8.57	.24	20.83 - 21.17	.60
8.58 - 8.92	.25	21.18 - 21.52	.61
8.93 - 9.27	.26	21.53 - 21.87	.62
9.28 - 9.62	.27	21.88 - 22.22	.63
9.63 - 9.97	.28	22.23 - 22.57	.64
9.98 - 10.32	.29	22.58 - 22.92	.65
10.33 - 10.67	.30	22.93 - 23.27	.66
10.68 - 11.02	.31	23.28 - 23.62	.67
11.03 - 11.37	.32	23.63 - 23.97	.68
11.38 - 11.72	.33	23.98 - 24.32	.69
11.73 - 12.07	.34	24.33 - 24.67	.70
12.08 - 12.42	.35		

Table V. Accumulated Frequencies of Daily Rainfall (in inches), 1916-1950

Bedford

	Daily Totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
IV	3.40								1					1
	2.50								1					1
	2.40								1					1
	2.30								1					1
	2.20								1					1
	2.10								1					1
	2.00								1					1
	1.90								1					1
	1.80								1					1
	1.70								1					1
	1.60								1	1				2
	1.50							1	1	1				3
	1.40							1	1	1				3
	1.30				1			2	1	1				5
	1.20				1	1		4	1	1	1			9
	1.10			2	1	2	1	5	4	5	1	1		22
	1.00	1		2	1	4	1	7	4	8	2	1	1	32
	0.90	2	2	3	3	4	1	7	8	9	4	2	1	46
	0.80	5	3	5	3	6	2	10	10	15	6	7	2	74
	0.70	7	5	7	3	9	3	16	14	16	11	9	4	104
	0.60	9	5	10	5	14	4	25	20	23	19	15	9	158
	0.50	13	10	14	9	23	11	34	27	31	25	26	12	235
	0.40	28	22	23	23	37	23	43	37	42	34	42	21	375
	0.30	47	32	40	49	69	47	68	56	62	65	76	46	657
	0.20	91	72	64	84	106	85	116	103	112	124	122	95	1174
	0.10	208	158	136	203	203	168	201	186	197	202	238	198	2298
IV	0.005	545	452	414	462	416	389	416	435	439	452	524	499	5443
*VI	0.004	540	537	671	588	669	661	669	650	611	633	526	586	7341
Total No. of days		1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days.

G.18557/CJH/8/63/75

Table V. Accumulated Frequencies of Daily Rainfall (in inches), 1916-1950

Cambridge

Daily Totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
IV 2.50													
2.40													
2.30													
2.20													
2.10													
2.00								1					1
1.90							2	1					3
1.80							2	1					3
1.70					1		2	1	2				6
1.60					1		4	2	2				9
1.50				1	1		4	2	3				11
1.40				1	1		6	3	4	1			16
1.30				1	1	1	7	5	4	1			20
1.20				1	1	1	8	5	4	1			21
1.10				2	1	2	9	5	5	3	1		28
1.00	1			2	2	2	14	7	9	3	3		43
0.90	2		1	2	3	3	17	11	12	3	3	2	59
0.80	7	1	1	4	4	5	22	13	13	5	4	2	81
0.70	9	1	5	6	9	6	25	14	16	8	8	2	109
0.60	12	5	7	9	13	9	31	18	23	25	18	4	174
0.50	20	10	14	17	28	15	48	21	35	32	30	11	281
0.40	27	19	25	29	43	25	55	36	49	42	43	22	415
0.30	60	45	44	58	72	54	88	66	80	79	75	54	775
0.20	151	104	86	129	112	113	165	130	139	157	150	121	1557
0.10	272	199	175	243	210	196	247	222	205	227	257	238	2691
IV 0.005	563	435	406	481	390	372	438	435	428	442	519	532	5441
* VI 0.004	522	554	679	569	695	678	647	650	622	643	531	553	7343
Total No. of days	1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days.

G.18557/CJH/8/63/75.

Table V. Accumulated Frequencies of Daily Rainfall (in inches), 1916-1950

Thetford

	Daily Totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
IV	2.60								1					1
	2.50								1					1
	2.40								1					1
	2.30								2					2
	2.20								2					2
	2.10								3					3
	2.00								3					3
	1.90								3					3
	1.80							2	3					5
	1.70							3	3					6
	1.60							3	3					6
	1.50							3	3					6
	1.40	1						4	3					8
	1.30	1				1		5	3	1	1			12
	1.20	1			1	1	1	7	3	2	1			17
	1.10	1			2	2	1	12	6	3	2	1		30
	1.00	2			2	3	1	15	8	3	3	1		38
	0.90	3		2	2	5	2	17	11	6	4	3		55
	0.80	4		2	2	7	4	23	13	9	7	8	1	80
	0.70	7	3	3	2	9	5	27	15	14	10	13	5	113
	0.60	9	7	4	6	14	9	36	22	23	14	20	11	175
	0.50	12	10	11	9	22	16	48	31	33	21	35	17	265
	0.40	27	22	20	25	32	31	60	53	53	44	50	31	448
	0.30	63	35	34	49	54	49	86	83	78	76	80	59	746
	0.20	130	92	78	124	95	98	133	131	130	139	145	118	1413
	0.10	277	196	182	249	204	197	241	233	236	240	266	248	2814
IV	0.005	651	540	477	531	463	444	503	505	519	597	655	631	6516
* VI	0.004	434	449	608	519	622	606	582	580	531	488	395	454	6268
Total No. of days		1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days.

G.18557/CJH/8/63/75.

Table V. Accumulated Frequencies of Daily Rainfall, (in inches), 1916-1950

Sandringham

Daily Totals	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	All Months
AI 2.50													
2.40													
2.30													
2.20													
2.10													
2.00													
1.90							1						1
1.80							1	1		1			3
1.70							1	1		1			3
1.60							1	1		1			3
1.50				1			2	2	1	1			7
1.40				1			2	2	2	2			9
1.30				1			5	3	2	2	1		14
1.20		1		1			6	4	4	2	1		19
1.10		1		1	1	1	6	5	4	2	2		23
1.00	1	1		1	3	2	9	6	5	3	3	1	35
0.90	2	1		1	5	5	15	11	5	5	5	1	56
0.80	5	1	1	2	8	6	18	18	7	8	6	2	82
0.70	8	3	5	2	15	9	26	21	14	13	9	4	129
0.60	12	8	11	4	19	15	34	28	22	21	15	9	198
0.50	21	15	14	10	25	25	50	36	35	36	27	13	307
0.40	36	32	19	34	36	45	65	62	57	52	57	31	526
0.30	70	57	42	63	75	66	93	93	94	92	105	69	919
0.20	144	103	85	132	124	117	150	134	134	150	158	141	1572
0.10	307	234	192	260	224	210	257	222	236	270	316	279	3007
AI 0.005	681	552	512	548	457	447	519	502	534	619	655	662	6688
* VI 0.004	404	437	573	502	628	603	566	583	516	466	395	423	6096
Total No. of days.	1085	989	1085	1050	1085	1050	1085	1085	1050	1085	1050	1085	12784

* Including rainless days,

G.18557/CJH/8/63/75.

TABLE VI. Maximum and Minimum Monthly and Annual Totals of Rainfall (in inches), 1916–50, with supplementary list covering extremes for the 50-year period, 1911–60.

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Bedford														
1916–50	Max.	1919 3.54	1937 3.29	1947 4.58	1926 2.96	1937 3.95	1936 3.98	1950 4.12	1948 5.00	1918 5.72	1949 4.56	1940 6.08	1919 3.62	1937 27.34
	Min	1932 0.69	1932 0.16	1929 0.04	1938 0.05	1934 0.55	1925 0.01	1921 0.16	1947 0.05	1929 0.02	1947 0.24	1945 0.34	1917 1932 0.37	1921 11.54
Other Extremes 1911–60	Max	– –	– –	– –	– –	– –	– –	1915 4.79	1912 6.45	– –	– –	– –	1914 3.89	1960 29.45
	Min	1957 0.66	1959 0.10	– –	– –	1956 0.50	– –	– –	– –	– –	– –	– –	1953 0.33	– –
Cambridge														
1916–50	Max	1934 4.02	1916 3.54	1947 4.13	1920 3.45	1932 4.05	1936 3.53	1950 7.58	1948 5.50	1918 6.63	1923 3.84	1940 5.65	1919 3.63	1924 28.67
	Min	1932 0.79	1932 0.25	1929 0.03	1938 0.17	1919 0.23	1940 0.37	1921 0.32	1940 1947 0.17	1929 0.10	1947 0.21	1945 0.20	1926 0.27	1930 10.36
Other Extremes 1911–60	Max	– –	– –	– –	– –	– –	1958 5.27	– –	1912 7.22	– –	1960 4.22	– –	1914 5.47	1958 29.01
	Min	– –	1959 0.11	– –	1957 0.10	– –	– –	– –	– –	1959 0.05	– –	– –	– –	– –

G.18557/CJH/8/63/75.

TABLE VI. Maximum and Minimum Monthly and Annual Totals of Rainfall (in inches), 1916-50, with supplementary list covering extremes for the 50-year period, 1911-60. (Cont.)

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Thetford														
1916-50	Max	1939	1916	1947	1931	1932	1927	1930	1931 1941	1918	1939	1940	1919	1916
		4.83	4.34	4.10	4.06	3.59	4.37	4.46	4.67	6.26	4.66	6.27	4.23	30.63
	Min	1949	1921	1929	1938	1919	1921	1935	1947	1941	1919	1920	1933	1921
		0.70	0.39	0.10	0.54	0.42	0.25	0.55	0.10	0.47	0.05	0.76	0.55	14.91
Other Extremes 1911-60	Max	-	-	-	-	-	-	-	1912	-	-	-	1914	1912
		-	-	-	-	-	-	-	9.16	-	-	-	5.67	34.99
	Min	-	1959	-	1954	1959	-	1955	-	1959	-	1956	-	-
		-	0.25	-	0.27	0.31	-	0.24	-	0.03	-	0.60	-	-
Sandringham														
1916-50	Max	1939	1950	1947	1935	1948	1927	1936	1917	1918	1924	1940	1929	1937
		4.85	3.98	4.71	3.55	4.22	4.42	6.64	5.75	6.09	4.77	5.70	4.53	33.76
	Min	1950	1929	1929	1938	1947	1940	1935	1947	1941	1947	1920	1932	1921
		0.93	0.61	0.29	0.68	0.31	0.34	0.31	0.03	0.62	0.32	1.02	0.75	16.76
Other Extremes 1911-60	Max	-	1958	-	-	-	-	-	1912	-	-	-	1914	1912
		-	4.08	-	-	-	-	-	8.36	-	-	-	5.10	37.12
	Min	-	1959	-	1912	-	-	1911	-	1959	-	1955	1913	-
		-	0.20	-	0.33	-	-	0.28	-	0.13	-	0.27	0.54	-

G.18557/CJH/8/63/75.

TABLE VII. Maximum Daily Rainfall (in inches), 1916-1950 with additional maxima for the 50-year period 1911-60.

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Bedford													
1916-50	Max	1918	1926	1916	1918	1950	1936	1923	1948	1918	1949	1940	1919
		1.01	0.98	1.13	1.35	1.29	1.13	1.50	3.46	1.60	1.29	1.10	1.00
Other Extremes 1911-60	Max	-	-	-	-	-	1958	-	-	-	1914	-	1954
		-	-	-	-	-	1.40	-	-	-	1.36	-	1.32
Cambridge													
1916-50	Max	1939	1925	1940	1918	1929	1936	1949	1948	1935	1924	1940	1919
		1.06	0.81	0.98	1.58	1.74	1.35	1.96	2.09	1.78	1.40	1.11	0.91
Other Extremes 1911-60	Max	-	1958	-	-	-	-	1959	-	-	-	-	1914
		-	0.98	-	-	-	-	2.25	-	-	-	-	1.41
Thetford													
1916-50	Max.	1939	1916	1947	1916	1918	1926	1927	1938	1918	1924	1940	1928
		1.46	0.73	0.99	1.26	1.35	1.24	1.89	2.63	1.30	1.37	1.15	0.89
Other Extremes 1911-60	Max	-	1958	-	-	-	-	1959	1912	-	-	1952	1959
		-	1.80	-	-	-	-	2.18	3.53	-	-	1.62	0.90
Sandringham													
1916-50	Max	1939	1946	1941	1918	1948	1929	1936	1917	1922	1941	1939	1925
		1.09	1.28	0.82	1.58	1.18	1.11	1.96	1.85	1.52	1.87	1.36	1.09
Other Extremes 1911-60	Max	1959	-	-	-	-	1911	-	1912	-	-	1915	1914
		1.34	-	-	-	-	1.78	-	2.91	-	-	1.93	1.32

G.18557/CJH/8/63/75.

Appendix I

River Board Area of Great Ouse.

Intense falls of Rain in 2 hours or less, 1860 - 1960.
Extracted from British Rainfall.

(Arranged chronologically, in county order).

Key at end.

Year	Class	Station	Riv. Div.	Date	Amt. in.	D'r'n min.	Rate in/hr
Northamptonshire							
1940	N	Brackley, Glebe Ho.	3	July 10	1.00	30	2.00
Buckinghamshire							
1872	N	Winslow, Addington Manor	5	Aug. 7	1.50	120	.75
1875	R	Newport Pagnell	5	June 29	2.00	120	1.00
1883	N	" "	5	" 25	1.50	105	.86
1897	R	" "	5	Sept.29	1.89	45	2.52
1898	N	" " , Brayfield Ho.	5	Aug. 6	.85	40	1.28
1909	N	Buckingham, Adstock Fields	5	Sept.17	1.15	40	1.73
1913	R	Newport Pagnell, The Croft	5	Oct. 2	1.25	30	2.50
1916	N	Oving Ho.	5	July 23	1.00	60	1.00
1935	R	Turvey, Brayfield Ho.	5	Aug. 8	1.82	90	1.21
1936	N	Buckingham, Market Hill	5	May 6	1.01	30	2.02
1949	N	Newport Pagnell, Wolverton Rd.	5	" 20	.98	60	.98
Bedfordshire							
1872	R	Woburn, Hayfield	3	Aug. 7	1.25	30	2.50
1874	N	Aspley Guise, Oaklands	3	July 10	1.25	60	1.25
1875	VR	Cardington	3	June 29	2.50	60	2.50
1876	R	Bedford	3	July 23	1.85	60	1.85
1878	R	Wobourn, Hulcote Rec.	3	Aug. 23	2.25	95	1.42
1880	N	Ampthill, Silsoe	3	" 6	1.18	60	1.18
1889	N	Biggleswade, Langford	3	July 12	1.20	90	.80
1898	N	Woburn, Experimental Fm.	3	Aug. 6	1.05	30	2.10
1900	R	Shillington	3	July 16	1.25	20	3.75
1903	VR	Bedford, Milton Ernest	3	June 11	2.77	90	1.85
1914	R	Biggleswade Waterworks	3	July 1	1.83	65	1.69
1918	N	Bedford	3	" 18	1.16	67	1.04
1924	R	Woburn, Crawley Mill Fm.	3	May 20	1.06	20	3.18
"	R	Shillington, Windmill Lo.	3	" 20	2.00	60	2.00
"	R	Shefford, Clifton Bury	3	" 30	2.25	120	1.13
1932	R	Hockliffe, Lyndhurst	3	July 11	1.50	30	3.00
"	N	Great Barford Ho.	3	Aug. 12	.98	37	1.59
1933	R	Aspley Guise	3	July 15	2.14	60	2.14
1934	N	Slisoe, The Red House	3	Sept.15	.78	15	3.12
1948	R	Cranfield	3	Aug. 2	1.50	40	2.25
1949	R	Leighton Buzzard, Heath Rd.	3	July 17	1.38	30	2.76
1950	R	Hockliffe, Lyndhurst	3	May 21	1.75	60	1.75
1959	R	Silsoe, Wrest Park	3	July 10	1.48	30	2.96
Huntingdonshire							
1878	R	Huntingdon	1	June 19	2.61	120	1.31
1884	R	Alconbury	1	July 4	1.90	45	2.53
1889	N	St. Neots, Tetworth Hall	1	" 12	1.00	60	1.00
1896	N	" , Waresley Park	1	Sept.11	1.75	120	.87
1906	N	Somersham Vic.	1	June 25	1.00	60	1.00

Year	Class	Station	Riv. Div.	Date	Amt. in.	D'r'n min.	Rate in/hr
Huntingdonshire (continued)							
1913	R	Brampton Grange	1	June 17	2.12	75	1.70
"	VR	Great Paxton	1	" 17	2.80	90	1.87
1920	N	St. Ives, Boxworth	1	May 29	.75	15	3.00
1936	N	Brampton Sch.	1	July 7	1.17	75	.94
1947	N	Bluntisham Rec.	1	June 27	1.34	90	.89
1949	N	St. Neots, The Square	1	July 14	1.12	35	1.92
"	N	Bluntisham Rec.	1	" 16	1.20	90	.80
1950	N	Great Gransden	1	May 21	1.10	30	2.20
"	N	Ramsey, Biggin Lane	1	" 21	1.13	40	1.69
"	N	Brampton Sch.	1	" 21	1.03	45	1.37
"	N	Hemingford Grey	1	" 21	.95	45	1.27
1951	N	Peterborough, Farcet	1	Aug. 6	1.20	50	1.44
1954	N	St. Ives, Tenterleas	1	June 5	.84	20	2.52
"	N	St. Neots, Kings Rd.	1	Aug. 20	1.00	60	1.00
"	N	Abbots, Ripton Hall	1	June 5	1.56	75	1.25
"	VR	Wyton Airfield	1	" 5	3.15	105	1.80
1956	VR	Hemingford Grey	1	July 18	3.35	90	2.23
1958	N	St. Ives, Tenterleas	1	Sept. 5	1.04	40	1.56
Cambridgeshire							
1880	R	March	2	July 14	2.13	90	1.42
1883	N	Cambridge, Beaconsfield	2	June 25	1.00	40	1.50
1888	N	Ely, Stretham	2	" 25	1.05	20	3.15
1897	R	" , " Ferry	2	Sept.29	1.90	90	1.27
1898	N	" " "	2	Aug. 6	.95	25	2.28
"	N	Longstowe Rec.	2	" 6	.95	35	1.63
1900	N	Odsey, Royston	2	July 16	1.09	30	2.18
1901	N	Cambridge, Benet Place	2	Oct. 2	1.00	30	2.00
1902	R	" , Sydney St.	2	May 30	1.10	10	6.60
"	R	Trumpington	2	" 30	1.30	20	3.90
"	R	Cambridge, Benet Place	2	" 30	1.30	30	2.60
1903	N	" , Sydney St.	2	July 23	1.00	60	1.00
1907	N	Wimpole Hall	2	Oct. 14	.82	20	2.46
1913	R	Stapleford Ho.	2	June 17	1.35	30	2.70
"	N	Cambridge, Hershel Ho.	2	" 17	.99	50	1.19
1915	N	Boxworth	2	July 4	.76	8½	5.36
"	N	"	2	June 30	1.42	90	.95
1917	R	Melbourne Vic.	2	Aug. 28	2.00	90	1.33
1927	R	Fordham, London Ho.	2	July 11	1.75	60	1.75
1933	N	Oakington	2	June 13	1.01	35	1.73
1936	N	Stretham Engine	2	" 20	.80	30	1.60
1937	N	Ely	2	Aug. 11	1.12	60	1.12
1939	R	Oakington	2	July 21	1.75	105	1.00
1947	R	Ashwell, Odsey	2	June 27	1.59	30	3.18
"	N	Chatteris, The Vic.	2	" 27	1.49	120	.75
1949	VR	March	2	July 15	4.00	105	2.29
1951	N	Cambridge, Oxford Road	2	" 31	.76	22	2.07
Norfolk							
1867	R	Brandon, West Tofts	4	May 10	1.92	120	.96
1880	R	Swaffham	4	Aug. 7	2.18	120	1.09
1889	N	Tilney St. Lawrence, Aylmer Hall	4	June 7	1.31	90	.87
1900	N	Swaffham	4	Aug. 21	1.09	45	1.45
1902	N	Tilney St. Lawrence, Aylmer Hall	4	" 7	1.18	30	2.36
1906	N	Swaffham	4	" 8	.85	20	2.55
1912	N	Sporle	4	May 22	1.10	60	1.10
1916	N	Thetford	4	Apr. 27	1.26	60	1.26
1918	N	Swaffham	4	May 17	1.10	60	1.10

Year	Class	Station	Riv. Div.	Date	Amt. in.	D'r'n min.	Rate in/hr
Norfolk (continued)							
1921	N	Thetford Waterworks	4	July 27	.80	30	1.60
1934	R	" , Lynford Nursery	4	June 25	1.70	60	1.70
1935	R	Kings Lynn, Narford Hall Gardens	4	Sept.22	1.46	45	1.95
"	N	Downham Market	4	" 22	1.22	60	1.22
"	R	Thetford Waterworks	4	Aug. 13	2.16	75	1.73
1936	R	Grimston, School Ho.	4	July 7	2.07	60	2.07
1939	N	" " "	4	" 24	.63	12	3.15
"	N	Downham Market	4	Sept. 2	1.00	45	1.33
1947	N	Thetford Waterworks	4	June 27	.88	45	1.17
1949	N	Kings Lynn, Shouldham	4	July 16	1.37	120	.69
1957	N	Homersfield	4	" 20	.55	10	3.30
1959	R	Thetford Waterworks	4	" 11	2.10	60	2.10
"	N	Marham Airfield	4	" 11	1.39	120	.69
1960	R	Downham, Dial Ho.	4	Oct. 28	1.30	25	3.12
Suffolk							
1863	N	Bury St. Edmunds, Westley	5	Aug. 29	.76	15	3.04
1865	R	" " " "	5	July 17	2.36	120	1.18
"	N	" " " , Beech Hill	5	" 17	1.41	60	1.41
1893	R	Little Saxham	5	" 12	2.05	105	1.17
1913	VR	Elveden Hall	5	June 17	2.85	58	2.95
1915	VR	Mildenhall	5	" 30	2.63	50	3.16
1918	R	Little Saxham Rec.	5	July 17	1.56	45	2.08
"	R	Bury St. Edmunds, Northgate St.	5	" 17	1.90	60	1.90
"	R	" " " , Westley	5	" 17	1.93	90	1.29
1924	N	" " " , Hengrave Hall	5	Aug. 31	1.59	90	1.06
1927	N&	Mildenhall	5	May 6	.95	40	1.43
"	R	"	5	July 6	1.49	50	1.79
1936	N	" Airfield	5	Sept. 5	1.06	30	2.12
1937	N	Bury St. Edmunds, Westley	5	Aug. 13	1.54	120	.77
1939	N	Mildenhall Airfield	5	Sept. 2	.83	27	1.84
1941	N	"	5	July 8	.59	12	2.95
1946	VR	Bury St. Edmunds, C. Depot	5	" 2	2.05	30	4.10
1947	N	Newmarket, Sew. Outfall	5	June 27	1.17	45	1.56
"	N	Mildenhall	5	" 27	.80	29	1.65
1950	N	" Airfield	5	July 9	1.05	45	1.40
1951	N	Pakenham, Church Hill	5	Aug. 6	1.34	105	.77
1959	R	Mildenhall Airfield	5	July 11	1.75	100	1.05
Hertfordshire							
1900	N	Hitchin, Bancroft	4	July 16	1.00	30	2.00
1902	N	" , The Chiltens	4	" 1	1.20	120	.60
1911	R	Baldock	4	June 3	1.59	60	1.59
1915	N	Royston, Earls Hill Ho.	4	Aug. 10	.76	25	1.82
1924	N	Offley Vic.	4	May 20	.94	45	1.25
1935	N	" , School Ho.	4	July 11	1.18	40	1.77
1942	N	Royston, Earls Hill Ho.	4	June 14	1.38	60	1.38
1952	R	Barley, Dalnveed	4	June 13	2.06	120	1.03
1955	R	Hitchin, Knightswood	4	" 8	1.75	90	1.17
1958	N	Royston, East Brooklands	4	July 16	1.70	60	1.70
1959	N	Chalfont St. Giles, The Colony	4	Aug. 10	.70	30	1.40
Essex							
1911	R	Arkesden, Wood Hall	7	May 11	2.52	120	1.26
1914	N	Great Chesterford Mills	7	June 19	.92	45	1.23
1925	R	Great Chesterford Mills	7	July 22	1.44	25	3.46
1941	N	Saffron Walden, Debden Rd.	7	" 8	1.28	75	1.02
"	N	" " , Bridge End	7	" 8	1.10	90	.73

Key:- N = Noteworthy

R = Remarkable

VR = Very Rare

County	River Division
Northamptonshire	3
Buckinghamshire	5
Bedfordshire	3
Huntingdonshire	1
Cambridgeshire	2
Norfolk	4
Suffolk	5
Hertfordshire	4
Essex	7

G.18557/CJH/8/63/100.

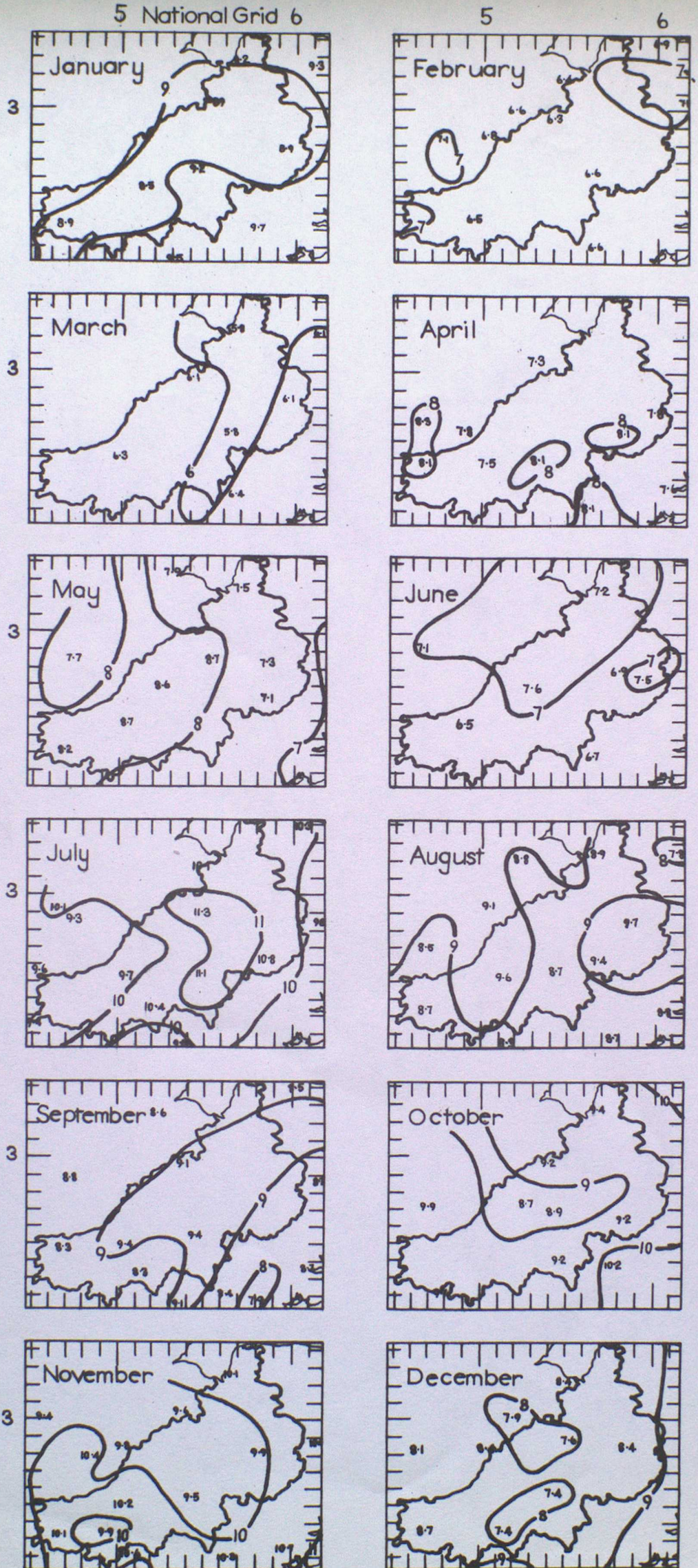

Fig. 1. Average Monthly Rainfall as percentage of Average Annual Rainfall 1916–1950

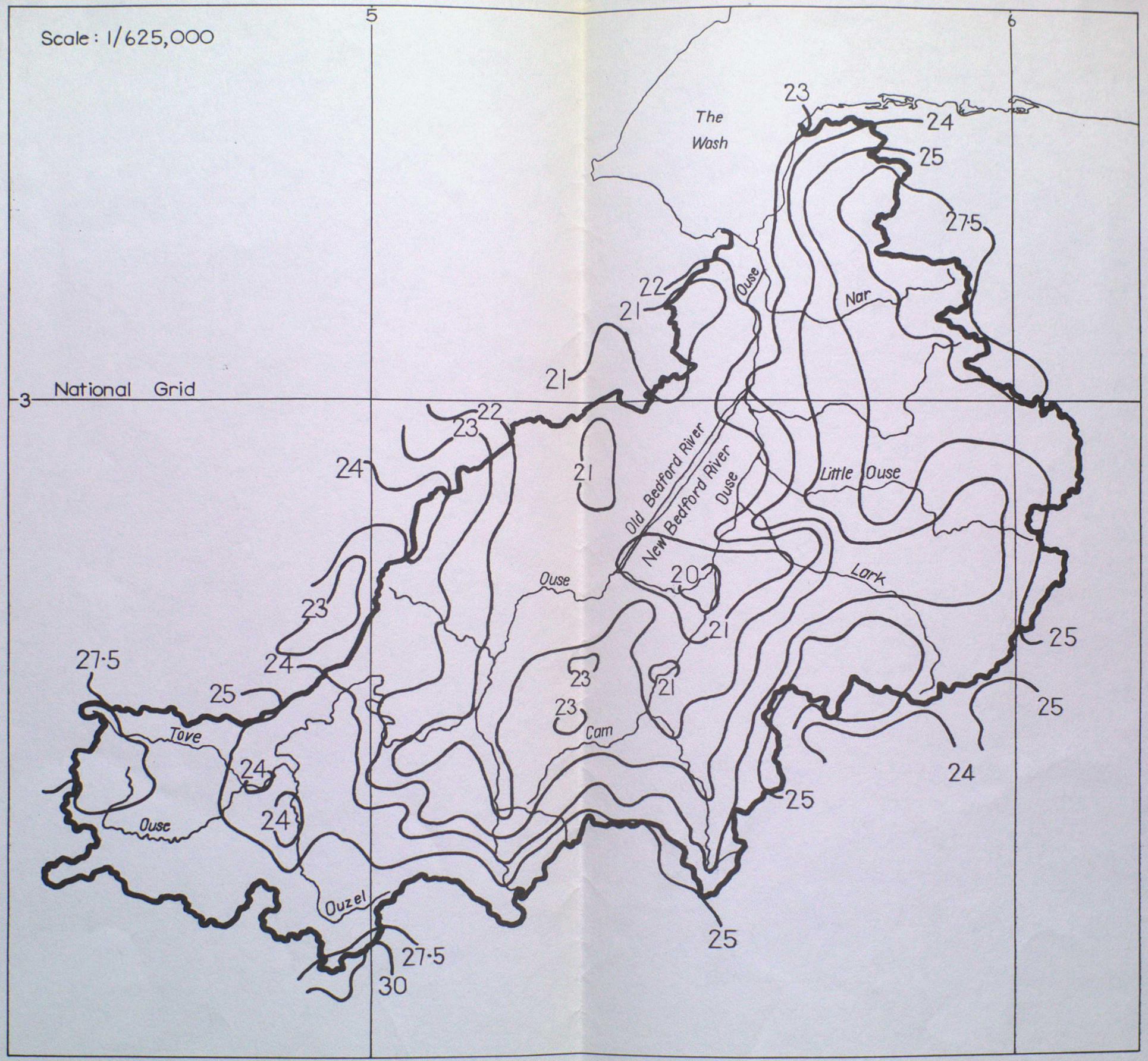

Fig. 2. AVERAGE ANNUAL RAINFALL 1916–1950 (in inches) over the Ouse River Board area.